

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer implemented method, comprising:

generating an electronic document in a workflow system for use with an external entity that does not exchange electronic documents with the workflow system, the electronic document having content, the electronic document further having a document appearance, the appearance representing the content;

attaching one or more approval codes to the electronic document, such that when the document is printed, each approval code generates an approval mark;

generating one or more control codes for the electronic document as part of a workflow in the workflow system, wherein a control code is generated for each approval code, and a separate control code is generated based on the contents of the print out, the one or more control codes being usable to respectively authenticate the approval mark or validate the content of the print out; and

creating a print out, the print out including the document appearance, the approval mark corresponding to each approval code and the one or more control codes.

2. (Canceled)

3. (Currently Amended) The method of claim [[2]] 1, wherein generating the approval mark comprises:

generating a digital signature as the approval code; and

generating a signature image associated with the approval code.

4. (Original) The method of claim 1, wherein generating one or more control codes comprises:
generating a single control code for the print out.

5. (Original) The method of claim 1, wherein the print out has one or more physical pages and generating the one or more control codes comprises:

generating one or more control codes, each control code corresponding to a page of the one or more physical pages.

6. (Original) The method of claim 1, wherein generating the one or more control codes comprises:

converting the electronic document to a canonical form; and

generating the one or more control codes by encrypting the canonical form with a private key, the private key having an associated public key certificate for retrieving a public key associated with the private key.

7. (Original) The method of claim 1, further comprising:

receiving the print out at the workflow system, the print out having a subsequently added human signature; and

validating the received print out within the workflow system.

8. (Currently Amended) A computer program product, tangibly embodied in a machine-readable storage device in an information carrier, comprising instructions operable to cause a programmable processor to:

receive a print out of an electronic document generated in a workflow system for use with an external entity that does not exchange electronic documents with the workflow system, the print out having a document appearance, and having one or more control codes and one or more approval codes, wherein a control code is generated for each approval code;

generate approval marks using the approval codes, the control codes generated for each approval code being usable to respectively authenticate the approval marks generated by the approval code;

convert the text of the print out to a canonical form; and

access a portal of the workflow system to authenticate the approval marks and to validate the print out using the canonical form and the control codes.

9. (Canceled)

10. (Currently Amended) A workflow system comprising:

means for generating an electronic document in a workflow system for use with an external entity that does not exchange documents with the workflow system, the electronic document having a content and a document appearance, the appearance representing the content;

means for attaching one or more approval codes to the electronic document, such that when the document is printed, each approval code generates an approval mark;

means for generating one or more control codes, wherein a control code is generated for each approval code, and a separate control code is generated based on the contents of the print out, the one or more control codes being usable to respectively authenticate the approval mark or validate the content of the print out;

means for printing a print out, the print out including the document appearance, the approval mark corresponding to each approval code and the one or more control codes; and

a portal for validating the print out and authenticating each approval mark, the validation being performed using a canonical form generated from the print out and using the control codes.

11. (Currently Amended) A computer program product, tangibly embodied in a machine-readable storage device in an information carrier, comprising instructions operable to cause a programmable processor to:

generate an electronic document in a workflow system for use with an external entity that does not exchange documents with the workflow system, the electronic document having content, the electronic document further having a document appearance, the appearance representing the content;

attach one or more approval codes to the electronic document, such that when the document is printed, each approval code generates an approval mark;

generate one or more control codes for the electronic document as part of a workflow in the workflow system, wherein a control code is generated for each approval code, and a separate control code is generated based on the contents of the print out, the one or more control codes

being usable to respectively authenticate the approval mark or validate the content of the print out; and

create a print out, the print out including the document appearance, the approval mark corresponding to each approval code and the one or more control codes.

12. (Canceled)

13. (Currently Amended) The computer program product of claim [[12]] 11, wherein the instructions to generate the approval code cause the data processing equipment to:

generate a digital signature as the approval code; and
generate a signature image associated with the approval code.

14. (Original) The computer program product of claim 11, wherein the instructions to generate the one or more control codes cause the data processing equipment to:

generate a single control code for the print out.

15. (Original) The computer program product of claim 11, wherein the print out has one or more physical pages, and the instructions to generate the one or more control codes cause the data processing equipment to:

generate one or more control codes, each control code corresponding to a page of the one or more physical pages.

16. (Original) The computer program product of claim 11, wherein the instructions to generate the one or more control codes cause the data processing equipment to:

convert the electronic document to a canonical form; and
generate the one or more control codes by encrypting the canonical form with a private key, the private key having an associated public key certificate for retrieving a public key associated with the private key.

17. (Original) The computer program product of claim 11, further comprising instructions operable to cause a programmable processor to:

receive the print out at the workflow system, the print out having a subsequently added human signature; and

validate the received print out within the workflow system.